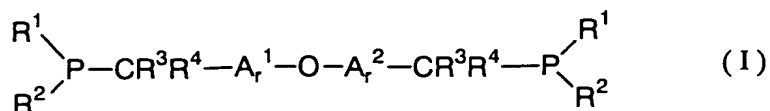


ABSTRACT

Bisphosphines represented by the general formula (I)



wherein Ar¹ and Ar² each represents an arylene group which may be substituted; R¹ and R² each represents an alkyl group which may be substituted, or an aryl group which may be substituted, or R¹ and R² may combinedly form a ring together with the phosphorus atom bonded thereto; R³ and R⁴ each represents hydrogen atom or an alkyl group; and the carbon atoms each having R³ and R⁴ are bonded in positions ortho to the oxygen atom bonded to Ar¹ and Ar²; process for production thereof; Group VIII metal complexes comprising said bisphosphines; and process for producing aldehydes, which comprises, on hydroformylation of ethylenically unsaturated compounds with carbon monoxide and hydrogen, using said Group VIII metal complexes.

The hydroformylation of ethylenically unsaturated compounds according to the present invention can produce n-aldehydes at higher reaction rate and industrially more advantageously than with catalysts comprising conventional phosphines, while suppressing side reactions such as hydrogenation and isomerization.